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(54) **BATTERY SWAPPING SYSTEM AND TECHNIQUES**

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(57) **ABSTRACT**

A system for exchanging an electrical energy storage system (EESS) of an electric vehicle includes. An EESS station is configured to position an electric vehicle in x and y directions. A vehicle lift raises the electric vehicle to a predetermined height. An EESS lift supports and lowers the EESS and replaces the EESS with a differing EESS. The vehicle lift may be an inboard lift and the EESS lift may be an outboard lift. The system may also include one or more rollers configured to guide the electric vehicle. The system may include a horizontal door having at least one tube positioned thereon for guiding the electric vehicle and/or at least one vehicle chock for positioning the electric vehicle in at least one of the x and y directions. The vehicle lift may include lifting arms to engage jack pads of the electric vehicle.